MONDAY

START	END		TOPIC	PRESENTER/s	AFFILIATION
Introduction, Director's Report, Agencies' View of CCMC, Keynote Presentations					
7:30 am	8:00 am	CHAIR: R. Robinson (NSF)	Registration, Coffee		
8:00 am	8:15 am		Introductory remarks	M. Hesse	NASA GSFC
8:15 am	8:45 am		Director's report	M. Kuznetsova	NASA GSFC
8:45 am	9:00 am		*Questions to Director*		
9:00 am	9:30 am		NASA Heliophysics view of CCMC	D. Chenette	NASA HQ
9:30 am	9:45 am		NSF View of CCMC	R. Robinson	NSF
9:45 am	10:00 am		*Questions and Discussion on agency perspectives*		
10:00 am	10:15 am		Coffee Break		
10:15 am	10:45 am		US Air Force view of CCMC	LtCol. J. Harris	US AF
10:45 am	11:15 am		CCMC – Community Resource for Research and Education	J. Sojka	USU
11:15 am	11:45 am		Model developer view of CCMC's role in R2O	T. Gombosi	UMICH
11:45 am	12:00 pm		Highlights of CCMC evolving infrastructure	M. Maddox	NASA GSFC
12:00 pm	12:30 pm		*DISCUSSION* *How to take advantage of CCMC existing capabilities, real-time systems, procedures, libraries, tools and databases?* *What should the CCMC and model developers do to facilitate collaborative development?*		
CCMC Support for an Evolving LWS Program					
12:30 pm	2:00 pm		Lunch		
2:00 pm	2:30 pm	CHAIR: S. Antiochos (NASA GSFC)	LWS Future Directions	M. Guhathakurta	NASA HQ
2:30 pm	3:00 pm		LWS TR&T Steering Committee Vision Report: Latest Progress	T. Mannucci	JPL
3:00 pm	3:30 pm		Future Directions in Modeling: Implications for LWS and CCMC	J. Linker	PREDSCI
3:30 pm	4:00 pm		Coffee Break		
4:00 pm	6:00 pm		*PANEL DISCUSSION* *How can the CCMC most effectively support LWS?* *Moderator: S. Antiochos* *Panelists: T. Fuller-Rowell, T. Gombosi, M. Guhathakurta, J. Linker, T. Mannucci, J. Raeder, N. Schwadron* *Panel will start with three brief, (5-10 mins 3-5 viewgraphs), "discussion statements" on:* *Future directions in SH physics: implications for CCMC – N. Schwadron* *Future directions in Magnetospheric physics: implications for CCMC – J. Raeder* *Future directions in ITM physics: implications for CCMC – T. Fuller-Rowell*		

TUESDAY

Models at CCMC, Collaborations with Model Developers, Updates from on-going LWS projects, Preparation for LWS deliverables

START	END		TOPIC	PRESENTER/s	AFFILIATION
7:30 am	8:00 am	CHAIR: I. Roussev (NSF)	Registration, Coffee		
8:00 am	8:20 am		CORHEL	J. Linker et al	PREDSCI
8:20 am	8:40 am		ENLIL	D. Odstrcil	NASA GSFC / GMU
8:40 am	9:00 am		SWMF Solar / Helio	Bart Van Der Holst	UMICH
9:00 am	9:20 am		LFM/Helio	S. Merkin	JHU APL
9:20 am	9:40 am		Heliospheric Tomography	B. Jackson	UCSD
9:40 am	10:05 am		*DISCUSSION* *Adjusting CCMC's Solar and Helio Model Inventory to focus on time dependent magnetograms* *Moderator: J. Linker*		
10:05 am	10:20 am		Coffee Break		
10:20 am	10:40 am		Coronal Global Evolutionary Model	G. Fisher	SSL BERKELEY
10:40 am	11:00 am		Flux Emergence Prediction Tool (FEPT)	N. Mansour	NASA ARC
11:00 am	11:20 am		EMMREM, PREDICCs, C-SWEPA, N. Schwadron	N. Schwadron	UNH
11:20 am	11:40 am		REleASE	A. Posner	NASA HQ
11:40 am	12:00 pm		LWS Model in Testing: MAGIC	P. MacNeice et al	NASA GSFC
12:00 pm	12:15 pm		Modular Solar Eruptions Capability	S. Antiochos	NASA GSFC
12:15 pm	12:30 pm		*DISCUSSION* *Models configured as Numerical Experiments*		
12:30 pm	1:30 pm		Lunch		
1:30 pm	2:30 pm		*SPLINTER SESSION 1* (*see page 9*) *SEP add-ons to existing models* *Leads: L. Mays, J. Luhmann*		
2:30 pm	3:40 pm		*SPLINTER SESSION 2* (*see page 9*) *CCMC support of on-going LWS projects* *Leads: J. Linker, I. Sokolov, P. MacNeice, M. Maddox* *Computational resource requirements of current and future models* *How the CCMC infrastructure should evolve in support of LWS deliverables?* *What opportunities exist to leverage software tool development for tasks which are common to multiple groups?*		
3:45 pm	4:05 pm	CHAIR: R. Walker (NSF)	SWMF Geospace	G. Toth	UMICH
4:05 pm	4:25 pm		OpenGGCM	J. Raeder	UNH
4:25 pm	4:45 pm		CMIT/LFM	J. Lyon	DARTHMOUTH
4:45 pm	5:05 pm		GUMICS	I. Honkonen	NASA GSFC, FMI
5:05 pm	5:25 pm		Weimer Models	D. Weimer	Virginia Tech

5:25 pm	5:45 pm	CHAIR: R. Walker (NSF)	IDA4D and AMIE	G. Crowley	ASTRA
5:45 pm	6:00 pm		Coffee Break		
6:00 pm	6:20 pm		TIE-GCM	S. Solomon	UCAR
6:20 pm	6:40 pm		SAMI3	J. Huba	NRL
6:40 pm	7:00 pm		PBMOD, Ionospheric Scintillations	J. Retterer	AFRL
7:00 pm	7:20 pm		TRIPL-DA	T. Gaussiran, R. Calfas	UTEXAS
7:20 pm	7:40 pm		CTIPe and beyond	T. Fuller-Rowell	NOAA SWPC, CIRES
7:40 pm	8:00 pm		Data Assimilation System for Global Ionosphere Thermosphere Electrodynamics	R. Schunk, J. Sojka	USU

WEDNESDAY

START	END		TOPIC	PRESENTER/s	AFFILIATION
Mission Science Support. Inner Magnetosphere Models.					
7:30 am	8:00 am		Registration, Coffee		
8:00 am	8:20 am		Mission Science Support	A. Glocer	NASA GSFC
8:20 am	8:40 am		CRCM and beyond	M-C. Fok	NASA GSFC
8:40 am	9:00 am		RCM	S. Sazykin	RICE University
9:00 am	9:20 am		VERB radiation belt model	Y. Shprits	UCLA/MIT
Research and Education Support					
9:20 am	9:40 am	CHAIR: Jimmy Raeder (UNH)	User feedback: Solar, Heliosphere	L. Jian	NASA GSFC
9:40 am	10:00 am		User feedback	A. Posner	NASA HQ
10:00 am	10:15 am		Coffee Break		
10:15 am	10:30 am		Early detection system for geomagnetic storms	R. Winslow	University of British Columbia
10:30 am	11:00 pm		User feedback: Geospace	D. Sibeck	NASA GSFC
11:00 am	11:20 am		User feedback: CCMC Student Research Contest 2012 winner	E. Dougal	Sandia National Lab
11:20 am	11:40 am		User feedback	J. Murphy	LASP
11:40 am	12:00 pm		CCMC-VMR Partnership	D. De Zeeuw	UMICH
12:00 pm	12:30 pm		*DISCUSSION* *CCMC support of Virtual Observatories*		
12:30 pm	2:30 pm		Lunch, CCMC staff discussions with modelers and users		
2:30 pm	3:45 pm		SPLINTER SESSION 3 *(see page 10)* *DEMO: Tools and systems for research, validation, analysis and space weather forecasting* *(M. Maddox, C. Wiegand, L. Mays, R. Mullinix, L. Rastaetter, A. Chulaki)*		
4:00 pm	4:20 pm	CHAIR: T. Moretto (NSF)	NSF view of CCMC role in education	R. Robinson	NSF
4:20 pm	5:20 pm		CCMC/SWRC-Universities Research, Education and Development Initiative (REDI)		
			Introduction	Y. Zheng	NASA GSFC
			Students' feedback	D. Krishnarao, M. Romano et al	CUA
			Professor's feedback: (QCC SWREP) QCC Space Weather Research and Education Program	M. Chantale Damas	CUNY/ Queensborough Community College
			DISCUSSION		
5:20 pm	5:45 pm		Embedding Education Material into iSWA	D. Knipp	University of Colorado
5:45 pm	6:00 pm		Coffee Break		
6:00 pm	6:25 pm		Using CCMC tools in classrooms	M. Liemohn	University of Michigan

6:25 pm	6:45 pm	CHAIR: T. Moretto	Student feedback (CCMC Student Research Contest 2013 winner)	Colin Komar	WV University
6:45 pm	7:10 pm		Using CCMC tools at Summer Schools	N. Gross	BU
7:10 pm	7:40 pm		CCMC-LiU-AMNH Partnership: Advanced Visualization Bringing space weather models to planetariums	A. Bock, C. Emmart	LiU Sweden, AMNH
7:40 pm	8:00 pm		*DISCUSSION* *Opportunities for Education*		

THURSDAY

START	END		TOPIC	PRESENTER/s	AFFILIATION
Space Weather: Applications, Prototyping, Services. Metrics and Validation.					
7:30 am	8:00 am		Registration, Coffee		
8:00 am	8:25 am	CHAIR: T. Gombosi (UMICH)	AFWA – CCMC/SWRC partnership	M. Horner	AFWA
8:25 am	8:50 am		Interplanetary space weather services to NASA robotic missions	J. Hunt	JPL
8:50 am	9:10 am		CARA space weather needs and collaboration with CCMC/ SWRC	R. Besser	NASA GSFC
9:10 am	9:30 am		FAA – CCMC/SWRC partnership	K. Shelton-Mur	FAA
9:30 am	9:50 am		DTU – CCMC/SWRC partnership	S. Vennerstroem	DTU, DK
9:50 am	10:05 am		Coffee Break		
10:05 am	10:25 am		NASA HEOMD view of CCMC/SWRC	J. Allen	NASA HQ
10:25 am	10:45 am		NASA JSC/SRAG-CCMC/SWRC partnership	D. Fry (remote)	NASA JSC
10:45 am	12:00 pm		Linking space environment modeling with models calculating impacts on biological and technological systems		
			Surface charging (20 min)	H. Garrett (remote)	JPL
			Internal charging (20 min)	J. Minow	NASA MSFC
			Satellite drag (20 min)	E. Zesta	NASA GSFC
			DISCUSSION (15 min)		
12:00 pm	12:30 pm		*DISCUSSION* *Addressing the need for a database of measured impacts (aka anomaly database) to facilitate forecasting service assessment* *Discussion statement: Joe Minow*		
12:30 pm	1:30 pm		Lunch, CCMC staff discussions with modelers and users		
1:30 pm	3:45 pm		*SPLINTER SESSION 4 (see page 10)* *Suborbital flights: space weather impacts and modeling* *Conveners: K. Shelton-Mur (FAA AST), A. Pulkkinen (NASA GSFC)*		
4:00 pm	4:25 pm	CHAIR: J. Harris (US AF)	NOAA's Space Weather Prediction Center Partnership with NASA's Community Coordinated Modeling Center	H. Singer and R. Viereck	NOAA SWPC
4:25 pm	4:45 pm		*DISCUSSION* *Validation, prototyping, and uncertainty assessment for operational geospace models*		
4:45 pm	5:05 pm		CCMC support of GEM program: Status and Outlook	E. MacDonald, E. Donovan, S. Merkin	NASA GSFC, JHU APL
5:05 pm	5:25 pm		CEDAR Support from the CCMC: Model Challenges and Metrics	B. Emery (remote), J-S. Shim	UCAR, NASA GSFC
5:25 pm	5:45 pm		Towards metrics for satellite drag studies	C. Kalafatoglu-Eyiguler, J-S. Shim	ITU, NASA GSFC
5:45 pm	6:00 pm		Coffee Break		
6:00 pm	6:20 pm		Selecting metrics for specific applications	A. Ridley	UMICH
6:20 pm	6:40 pm		*DISCUSSION* *Selecting metrics for specific applications*		

		CHAIR: J. Harris	Forecasting Methods Scoreboard		
6:40 pm	6:55 pm		Overview	L. Mays	NASA GSFC
6:55 pm	7:10 pm		ScoreBoard participants feedback	S. Hong	KSWC
7:10 pm	7:25 pm		ScoreBoard participants feedback	K. Tobiska (remote)	USU, SEC
7:25 pm	7:45 pm		SHINE model validation study	P. MacNeice	NASA GSFC
7:45 pm	8:00 pm		*DISCUSSION*		

FRIDAY

START	END		TOPIC	PRESENTER/s	AFFILIATION
Partnership with research, educational and operational institutions world-wide					
7:30 am	8:00 am	CHAIR: I. Mccrea (UK MET Office)	Registration, Coffee		
8:00 am	8:20 am		SSA Programme, ESA	J-P. Luntama	ISS/ESA
8:20 am	8:40 am		SPENVIS, BIRA	M. Kruglanski	Belgium
8:40 am	9:00 am		COMESEP, BIRA	N. Crosby (remote)	Belgium
9:00 am	9:20 am		KSWC/RRA	S. Hong	Korea
9:20 am	9:40 am		MSU	V. Kalegaev	Russia
9:40 am	10:00 am		ITU	C. Kalafatoglu-Eyiguler, Z. Kaymaz	Turkey
10:00 am	10:15 am		Coffee Break		
10:15 am	10:35 am		MET Office, UK	M. Gibbs, I. Mccrea	UK
10:35 am	12:00 pm		*DISCUSSION:* *International CCMC (iCCMC) opportunities* *Leads:* *M. Kuznetsova (CCMC), I. Mccrea (MET Office)* *International participants:* *A. Bock (Linkoping University, Sweden), N. Crosby (COMESEP, BIRA, Belgium), M. Gibbs (MET Office, UK), S. Hong (KSWC/RRA, Korea), I. Honkonen (FMI, Finland), C. Kim (KMA, Korea), J-P. Luntama (SSA Programme, ESA). C. Kalafatoglu-Eyiguler (ITU, Turkey), V. Kalegaev (MSU, Russia), M. Kruglanski (SPENVIS, BIRA, Belgium), I. Mccrea (MET Office, UK), C. Ngwira (SANSA, South Africa), ISWI: N. Gopalswamy, J. Davila. ILWS: M. Guhathakurta*		
Summary of Workshop Results					
12:00 pm	1:00 pm	CHAIR: J. Sojka (USU)	*Summary of Workshop Results* *(Sessions Chairs, Discussion Leaders)* *Final words.*		
1:00 pm	3:00 pm		Lunch, CCMC staff discussions with workshop participants		

SPLINTER MINI-SESSIONS

Splinter Session 1
Tuesday (4/1/2014)
1:30 – 2:30 pm

SEP add-ons to existing models
Leads: *L.Mays, J. Luhmann*

Description: Interpreting SEP data and modeling SEP events at various spacecraft requires an understanding of the global heliospheric magnetic field topologies connecting spacecraft to shock sources. Making SEP models available for CCMC research and operational users is one of CCMC's top priorities. Heliospheric model outputs are a necessary ingredient for SEP simulations. The CCMC is making steps towards offering a system to run SEP models driven by a variety of heliospheric models available at CCMC.

Session discussion topics include:

- *How different models will fit into such a system, and what aspects are necessary for making the system useful tool for model developers and users.*
- *Challenges of integrating the SEP physics with the MHD heliospheric model results*
- *Limitations of the various codes (might include things like realism of modeled solar wind and CMEs, spatial resolution, near-Sun region, transport assumptions (eg scattering, drifts), forecasting potential, etc.)*
- *Current status and near term expectations for each effort underway. What is the expected outcome and when. What developments may come later?*

Session participants are invited to bring a few slides to aid discussion and illustrate their ideas.

Splinter Session 2
Tuesday (4/1/2014)
2:30 – 3:15 pm

CCMC support of on-going LWS projects

Leads: *J. Linker, I. Sokolov, P. Macneice, M. Maddox*

- *Computational resource requirements of current and future models.*
- *How the CCMC infrastructure should evolve in support of LWS deliverables?*
- *What opportunities exist to leverage software tool development for tasks which are common to multiple groups.*

Splinter Session 3
Wednesday (4/2/2014)
2:30 – 3:45 pm

DEMO: Tools and systems for research, validation, analysis and space weather forecasting
Leads: *M. Maddox, C. Wiegand, L. Mays, R. Mullinix, L. Rastaetter*

Splinter Session 4
Thursday (4/3/2014)
1:30 – 3:45 pm

Suborbital flights: space weather impacts and modeling.
Conveners: *K. Shelton-Mur* (FAA AST), *A. Pulkkinen* (NASA GSFC)

This mini-session will facilitate discussion about the emerging field of suborbital flights and corresponding space weather modeling needs. We will discuss how space weather can impact suborbital flights and identify paths for improved research-based modeling of space environment pertaining to suborbital flights. The key goal of the session is to provide community guidance on research-based modeling needs to address the needs of this emerging field. The session is organized around a few invited talks and free-form informal discussion on the topic.

- Introductions and purpose of the session, *K. Shelton-Mur* (FAA AST) (5 min).
- SRAG views on space weather hazard at suborbital flight altitudes, *TBD* (NASA JSC, SRAG), [20 min] (remote)
- Aerospace Corp work on quantifying space weather biological and system effects for suborbital flights, *J. Mazur* (Aerospace Corp), [20 min] (remote)
- CAMI activities and capabilities to address modeling of space weather hazard at suborbital altitude, *K. Copeland* (FAA CAMI), [20 min]
- NAIRAS model and application to space weather effects for suborbital flights, *C. Mertens* (NASA LARC), [20 min]